

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P838550

Luminaire Tested: HCSQ635D010-HM63040840-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838550
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ635D010-HM63040840-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

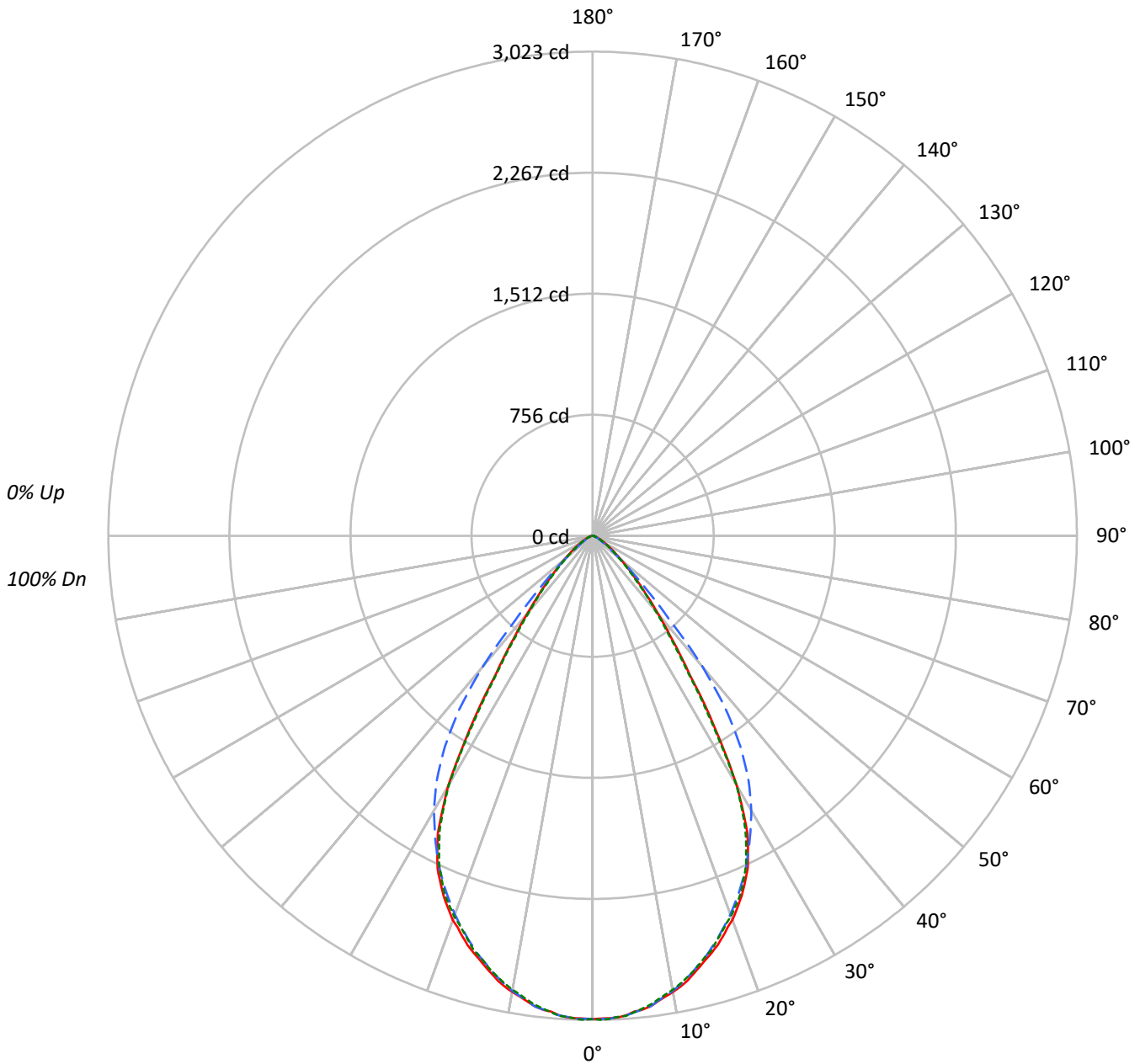
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3394.1 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 34
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100															
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92				92															
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85				85															
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78				78															
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71				71															
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66				66															
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61				61															
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56				56															
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52				52															
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48				48															
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45				45															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	129933	129933	129933
5°	128908	129129	129055
10°	126451	126158	125865
15°	121983	121310	121238
20°	116953	115267	115803
25°	108857	107902	107664
30°	89455	98443	89206
35°	55247	84545	53928
40°	35465	59926	34240
45°	23132	29044	22012
50°	15359	14462	14348
55°	10427	7537	9676
60°	7061	4616	6484
65°	4941	3413	4432
70°	3160	2530	2946
75°	2229	1946	1946
80°	1661	1240	1240
85°	840	1630	840

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 29044 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.8	8.3
10°-20°	764.9	22.5
20°-30°	1032.6	30.4
30°-40°	805.9	23.7
40°-50°	337.6	9.9
50°-60°	114.4	3.4
60°-70°	40.8	1.2
70°-80°	13.3	0.4
80°-90°	2.7	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2079.4	61.3
0°-40°	2885.2	85.0
0°-60°	3337.3	98.3
0°-90°	3394.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3394.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3018	3018	3018	3018	3018	
5°	2983	2986	2988	2983	2986	282
15°	2737	2730	2722	2718	2720	770
25°	2291	2281	2271	2271	2266	1031
35°	1051	1234	1608	1232	1026	691
45°	380	407	477	388	362	305
55°	139	127	100	120	129	128
65°	48	40	34	38	44	50
75°	13	12	12	12	12	15
85°	2	2	3	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3017.8	3017.8	3017.8	3017.8	<i>3017.8</i>
1°	<i>3014.4</i>	<i>3019.5</i>	<i>3016.1</i>	<i>3017.8</i>	<i>3022.8</i>
2°	3014.4	3014.4	3017.8	3016.1	<i>3017.8</i>
3°	3011.1	3011.1	3007.7	3007.7	<i>3007.7</i>
4°	3001.0	3001.0	3001.0	2997.7	<i>3004.4</i>
5°	2982.6	2986.0	2987.7	2982.6	<i>2986.0</i>
6°	2975.9	2977.6	2974.3	2972.6	<i>2969.2</i>
7°	2960.9	2955.9	2960.9	2949.2	<i>2950.8</i>
8°	2935.8	2935.8	2932.4	2929.1	<i>2925.7</i>
9°	2912.3	2912.3	2909.0	2904.0	<i>2900.6</i>
10°	2892.3	2887.2	2885.6	2880.5	<i>2878.9</i>
11°	2868.8	2858.8	2857.1	2852.1	<i>2852.1</i>
12°	2840.4	2835.3	2823.6	2822.0	<i>2822.0</i>
13°	2805.2	2800.2	2791.8	2785.1	<i>2791.8</i>
14°	2771.7	2768.4	2753.3	2758.4	<i>2756.7</i>
15°	2736.6	2729.9	2721.5	2718.2	<i>2719.9</i>
16°	2704.8	2693.1	2681.4	2683.0	<i>2693.1</i>
17°	2671.3	2654.6	2642.9	2641.2	<i>2646.2</i>
18°	2629.5	2616.1	2597.7	2604.4	<i>2604.4</i>
19°	2587.6	2569.2	2557.5	2555.8	<i>2562.5</i>
20°	2552.5	2524.0	2515.7	2514.0	<i>2527.4</i>
22.5°	2432.0	2403.5	2396.8	2403.5	<i>2416.9</i>
25°	2291.4	2281.3	2271.3	2271.3	<i>2266.3</i>
27.5°	2092.2	2115.6	2127.3	2103.9	<i>2065.4</i>
30°	1799.3	1898.0	1980.1	1886.3	<i>1794.3</i>
32.5°	1417.7	1621.9	1811.0	1616.9	<i>1384.2</i>
35°	1051.1	1233.6	1608.5	1231.9	<i>1026.0</i>
37.5°	810.1	927.3	1367.5	912.2	<i>786.7</i>
40°	631.0	699.6	1066.2	691.3	<i>609.2</i>
42.5°	490.4	533.9	709.7	523.9	<i>473.7</i>
45°	379.9	406.7	477.0	388.3	<i>361.5</i>
47.5°	296.3	308.0	326.4	294.6	<i>279.5</i>
50°	229.3	229.3	215.9	220.9	<i>214.2</i>
52.5°	177.4	170.7	145.6	160.7	<i>164.0</i>
55°	138.9	127.2	100.4	120.5	<i>128.9</i>
57.5°	105.4	93.7	72.0	88.7	<i>97.1</i>
60°	82.0	70.3	53.6	67.0	<i>75.3</i>
62.5°	63.6	53.6	41.8	50.2	<i>56.9</i>
65°	48.5	40.2	33.5	38.5	<i>43.5</i>
67.5°	36.8	30.1	25.1	28.5	<i>33.5</i>
70°	25.1	23.4	20.1	21.8	<i>23.4</i>
72.5°	18.4	16.7	15.1	15.1	<i>16.7</i>
75°	13.4	11.7	11.7	11.7	<i>11.7</i>



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	3.3	3.3	3.3	3.3	3.3
85°	1.7	1.7	3.3	1.7	1.7
87.5°	1.7	1.7	1.7	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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— 0°-180° - - 45°-225° - - - 90°-270°

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77.5°	8.4	8.4	8.4	8.4	8.4
80°	6.7	6.7	5.0	5.0	5.0

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Scaled Data Report



(END OF REPORT)